AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [0005] with the following amended paragraph:

[0005] The Casebolt Patent Application includes a capacitive sensing system inside the housing of an electronic device which senses the presence of something in contact with or close proximity to the electronic device and generates a signal with an ON state when there is something in contact with or in close proximity to the electronic device and generates an OFF state when there is nothing in contact with or in close proximity to the electronic device. In the active state, each of the mouse sub-systems is powered-up and fully operational. The active state only occurs at times when the sensing algorithm generates an ON state indicating the presence of a user's hand on or in close proximity to the mouse. The absence of a user's hand results in generation of an OFF flag. Upon a determined duration of mouse inactivity in the active state, coupled with an ON state of the sensing algorithm, the state machine transitions to an idle state. In the idle state, the system cycles between the shut down and active state conditions. Upon occurrence of an OFF signal, the state machine transitions from the idle state to the shut down state. Alternatively, if no mouse movement occurs for another period of time such as 30 seconds, the state machine transitions to an extended idle state. Just as in the idle state, in the extended idle state, the system cycles between the shut down and active state conditions but with a longer period of shut down per cycle. There is also a beacon state indicating that the mouse has been picked up off of its supporting surface by the user in which case, the tracking light source is flashed at a reduced rate. In the Casebolt Patent Application, FIG. 7 is a schematic of a capacitive proximity sensing system.

Please replace paragraph [0007] with the following amended paragraph:

[0007] Junod recognizes that the problem of power consumption is particularly troublesome in new mice using an optical module which detects the reflection of light off a surface to determine mouse movement. When such a device is wireless, it is difficult to have batteries that can last more than a couple of months. A hand detection device may use a capacitive detection. In Junod, FIGS. 2A, 2B, 5, 6 and 7 show the capacitive structures for detecting the presence of a human

hand on a mouse.

Please replace paragraph [0008] with the following amended paragraph:

[0008] The Frederick Patent (U.S. Pat. No. 5,990,868) is directed to an apparatus for performing power conservation in a pointing device located on a wireless data entry device. The wireless remote control input device includes a trackball. The device further includes a power management means for managing the power of the power source by monitoring the status and activity of the trackball used on the remote control input device. FIG. 4 in the Frederick Patent, illustrates a flow chart for the operation of the power management system. The power management means includes an active monitoring means that checks the trackball activity continually. The power management includes several sleep levels. The device selects the sleep level based on the amount of time the device has been idle. The pre-selected levels are three levels that are, 1) whether the trackball has been left idle for more than twenty seconds, 2) whether the trackball has been idle for more than 10 minutes, or 3) whether the trackball has been idle for more than 30 minutes. Based on the particular level of idleness, the system powers down the micro device. The method of operating the device determines whether the trackball pointing device is active, idle or asleep, then selects a level based on the period of idleness of the trackball pointing device, and then reduces the power used by the remote controller by curtailing monitoring of the trackball pointing device according to the sleep level. The method automatically determines the activity of the trackball pointing device by sensing user input or by determining that a button has been pressed.

Please replace paragraph [0010] with the following amended paragraph:

[0010] Optical mice are different. In the Dandliker Patent, FIG. 7A is a flow chart for the operation of a mouse or other pointing device. The processing determines whether a sleep mode is appropriate, and if yes, the electronics go into sleep mode until a displacement is detected in a periodic interrupt routine or a time out occurs. If not, the processing determines whether the mouse is moving. If not, sleep mode is enabled. If the mouse is moving, the displacement is

computed.

Please replace paragraph [0014] with the following amended paragraph:

[0014] The Chou Patent (U.S. Pat. No. 6,339,199) is directed to a tilt switch which includes a central electric contact member which defines a rolling area. An electrically conductive ball member is rollable on the rolling area. An electrically conductive shell member confines a space for the ball member. There is a first electric contact terminal and the electrically conductive shell has a second electric contact terminal in electric contact with the first electric contact terminal. When the rolling area is tilted, the ball member moves by virtue of gravity to contact with the inner surface of the shell member so as to establish an electrical connection between the central electric contact member and the first electric contact terminal. The tilt switch is mounted on a support 30 such as the circuit board. The central electric contact member is shown as reference numeral 32 in FIG. 1 of Chou. The electrically conductive ball member 20 is made of copper material and is rollable on the rolling surface of the central electric contact member 32. The first electric contact terminal is shown as reference numeral 311 (Chou, FIG. 2) and there are two such terminals. The electrically conductive shell member 10 has a pair of second electric contact terminals 17 shown in FIG. 3 of Chou. An electrically conductive solder material 40 is disposed to interconnect electrically the terminal leg 14 of the second electric contact terminal 17 with the first electric contact terminal 311. Once the rolling area is tilted from the horizontal plane, the ball member 20 moves by virtue of gravity to contact with the inner peripheral surface 122 so as to establish an electrical connection between the central electric contact member 32 and the first electric contact terminal 311.

Please replace paragraph [0016] with the following amended paragraph:

[0016] The Kato Patent (U.S. Pat. No. 5,837,951) is directed to an inertia switching device and acceleration responsive device for use with an automatic shut off valve having an integrated microcomputer and employed in acidic gas equipment and commercial propane gas equipment or mounted on control devices of oil space heaters, gas burning appliances and electrical equipment, for detecting oscillations such as an earthquake to supply a detection signal to the

automatic shut off valve or control device. Thus, the device of the Kato patent is a seismosensitive device. The seismosensitive device comprises a housing 2 and a header 3 formed of an electrically conductive material such as a metal. A contact plate 7 serves as a fixed contact and is secured on one end of the terminal pin 6. The contact plate 7 has a plurality of feather portions 7A regularly extending from its center and having sufficient elasticity. An electrically conductive solid inertial ball 8 serves as a movable contact and is enclosed in the housing 2. The bottom 2A of the housing 2 includes an inclined face. The inclined face is a conical face obtained by turning a straight line with an inclination 2C shown in the FIG. 1 of Kato. The bottom face 2B of the housing 2 is provided with a central recess 2A serving as a rest portion for holding the inertia ball 8 in position until it is subject to an oscillation with a predetermined magnitude. In operation, the inertia ball rests on the recess when it is stationary at its normal attitude. In this state, the inertia ball 8 is positioned apart from the contact plate. When subjected to an oscillation, the inertia ball 8 is kept resting on the recess 2A until the predetermined oscillation acceleration intensity value depending on the radii of the inertia ball and the recess is reached. When the predetermined oscillation acceleration intensity value is reached, the inertia ball 8 is caused to move out of the recess 2A, rolling on the bottom face 2B of the housing 2. Rolling on the bottom face 2B, the inertia ball comes into contact with the feather portions 7A of the contact plate 7. Consequently, an electrical path is made by the terminal pin 6, the contact plate 7, the inertia ball 8, the housing 2 and the header 3. A resultant electrical signal is supplied to various warning devices or control devices such that a protective device such as an automatic shut off valve or a control device of a gas burning appliance is operated to prevent occurrence of a fire due to an earthquake. In an embodiment shown in FIG. 22 of Kato, the contact plate and the feather portions are below the ball 49 rather than above the ball.

Please replace paragraph [0018] with the following amended paragraph:

[0018] The Romano Patent (U.S. Pat. No. 5,209,343) is directed to an electrical tilt switch. The tilt switch has at least one conductive weight which moves freely within the housing. The weight abuts against terminals as it moves and electricity is conducted through the weight from one terminal to the other, thus completing a circuit. The free moving weight may be a rounded weight such as a single metal ball. In Romano, ~~T~~the conductive balls 30 may be fabricated from a high density material such as lead, steel or the like, and may include a plating such as copper, nickel or gold to increase surface conductivity. The housing 12 is filled with an inert gas 32 such as nitrogen, neon or the like. The inert gas 32 provides a non-corrosive environment for the conductive balls 30 preventing oxidation, pitting and other corrosion common to electrical contacts. A non-corrosive environment can be formed within the housing by evacuating the housing of all gases or filling the housing with a low viscosity non-conductive liquid such as silicon oil.

Please replace paragraph [0021] with the following amended paragraph:

[0021] The Gillund Patent (U.S. Pat. No. 3,619,524) is directed to a sensor. The sensor includes a cylindrical housing having an apertured planer base wall and a contact plate. A magnet is mounted on the base wall and located normal to the aperture. The magnetic flux of the magnet maintains a ball in a seated relationship with a ball seat provided by the opening of the apertured plate. In Gillund, ~~T~~the magnet is shown by reference numeral 22. The ball 28 is of a magnetic electrically conductive material. A circumferential series of adjacent spaced axially tapered spring fingers 36 extend generally radially of the ring 34 and of the ball seat 26. The proximal portions of the spring fingers are integrally joined to ring 34 at portion 38 and cantilever the fingers in overlying angularly spaced relationship to the surface 30.

Please replace paragraph [0022] with the following amended paragraph:

[0022] The Durst Patent (U.S. Pat. No. 5,030,955) is directed to a remote controlled transmitter with a function selector device which includes an optically functioning tilt switch which selects the function. The remote control transmitter can be used to move a curser up and down in a

vertical direction and to and fro in a horizontal direction on the screen of a television set. The tilt switch device is located in the housing and emits four different selection signals depending upon the tilt of the housing: forward, backwards, to the left, and to the right. With reference to FIG. 3 of the Durst Patent, there is a recess 20. At the edges of the recess 20, there is a narrow contact element 22 and to the right and left of this a wider contact element contact 23. A ball 24, better shown in FIGS. 4a and 4b of Durst, has a surface 25 that is highly electrically conductive. The ball typically rests on the middle contact element 22. When the remote control transmitter is tilted in one of the directions, the ball will roll along the edges and the ball will connect the two contact elements 23.

Please replace paragraph [0024] with the following amended paragraph:

[0024] The Bergman Patent (U.S. Pat. No. 5,493,538) is directed to a transition detection circuit. A latch circuit is set by a detection circuit which detects a difference between inputs. One of the inputs is delayed by a predetermined period of time. The output of the latch circuit is inverted and delayed through a delay circuit and resets the latch circuit. FIG. 9 of Bergman illustrates a delay circuit.

Please replace paragraph [0025] with the following amended paragraph:

[0025] The Schenkel Patent (U.S. Pat. No. 4,980,575) is directed to a motion sensor and detection system. Detection circuitry illustrated in FIG. 7 of Schenkel is associated with a sensor to provide an electrical output indication of the sensing of motion of the structure on which the sensor and the detection circuitry are disposed. The sensor is shown as reference numerals 32, 34, 36 and 38. When the elements 36 and 38 are making contact with one another, line 52 is electrically connected to the negative terminal of the battery. When the elements are separated, the line 52 voltage level is pulled up to the battery voltage V+ through resistor 54 which has a very large resistance value so that the current through the resistor is minimized when line 52 is grounded. When the motion sensor is at rest, the elements 36 and 38 are stationary and will either be in contact or be separated from one another. Therefore, line 52 will be at a constant voltage level (ground or V+). When there is movement, the elements will be in random motion,

sometimes making contact and sometimes separated. This will cause line 52 to toggle between V+ and ground. The system includes for motion detection a transition detector 56, a latch 58, a timer 60 and an analog switch 62. The system is furnished with a clock signal over line 64.

Please replace paragraph [0026] with the following amended paragraph:
[0026] The Frank Patent (U.S. Pat. No. 4,688,025) is directed to a movement sensor. FIG. 5 of the Frank patent illustrates the movement sensor 100 which comprises of a cylindrical container formed of a circular cross section sidewall 102 and two end walls 104, only one of which is shown in FIG. 5. The closed container houses a ball 106 made of conductive material. The side wall 102 is made of a conductive material or alternatively, has a conductive layer on its surface. Each of the end walls 104 has on its inner surface electrically conductive regions 108 and 110. The region 108 has the shape of a ring with a plurality of radially and inwardly extending contact arms 112. The region 110 is shaped as an inner ring having a plurality of radially outwardly extending contact arms 114 which are interdigitated with the arms 112. The ball 106 will rest with one part of its surface contacting the sidewalls 102 and another part touching either one of the arms 112 or 114, or the space between a pair of such arms. Movement of the sensor 100 will cause the ball to roll, while maintaining contact with the side wall 102 so that the ball 106 successfully touches respective arms 112 and 114. The sensor operates in any plane. In Frank, FIG. 2 is a schematic diagram of the movement sensor circuit. FIG. 3 of Frank shows a delay circuit which can be used in FIG. 2 for delay circuits 22, 24 and 36.

Please replace paragraph [0027] with the following amended paragraph:
[0027] The Davis Patent (U.S. Pat. No. 4,196,429) is directed to a motion detector. An array of interdigitally related elements are interstitially spaced from one another, with alternate elements in the array connected to a first conductor and the remaining elements in the array connected to a second conductor. A conductive member, such as a metallic ball, is freely moveable in two dimensions, over the area of the array, electrically coupling and decoupling adjacent elements in the array as it moves. A circuit is connected between the first and second conductors and detects the coupling of and/or decoupling of electrical contacts between adjacent elements as the ball

moves over the elements. Further, the circuitry detects the frequency of the coupling and/or decoupling being detected to indicate a predetermined motion or absence of motion. In the Davis Patent, FIG. 10 is a schematic view of the sensing circuitry used with the motion detector. The circuit shown in FIG. 10 incorporates a circuit, commonly known as a "hex inverter" buffer amplifier circuit. Sensitivity is determined by special relationship of the ball and the conductor width and separation.

Please replace paragraph [0028] with the following amended paragraph:

[0028] The Johnson Patent (U.S. Pat. No. 3,742,478) is directed to a circuit board motion sensitive switch. The motion sensitive switch includes a steel ball positioned to roll freely across the surface of a printed circuit board having three separate circuits positioned thereon in a space relationship such as shown in FIG. 4 of Johnson. If the switch is moved even slightly, the steel ball rolls from circuit to circuit making and breaking connections so as to sound an alarm. In addition, a circuit is shown in FIG. 5 of Johnson. An alarm is sounded only upon the steel ball, contacting two of the circuits so as to charge a capacitor and then the ball rolls into contact with a different pair of circuits so as to discharge the capacitor into an alarm relay 42. The motion sensitive switch causes a capacitor 32 to be charged. Any disturbance of switch board 14 which then causes the ball to roll to a new position in which it establishes contact between circuits 27 and 26 allows capacitor 32 to discharge into circuit 26. Current in circuit 26 is presented to the gate of the silicon controlled rectifier 38 so as to make silicon controlled rectifier 38 conducting. Current is passed through silicon controlled rectifiers 36 and 38 to the relay 42 which in turn activates a radio transmitter to send a signal to a remote alarm station having a suitable radio receiver.

Please replace paragraph [0029] with the following amended paragraph:

[0029] The Schneider, Jr. Patent (U.S. Pat. No. 3,733,447) is directed to a tilt responsive inertia switch with a printed circuit and a moveable ball contact. The switch includes a conducting ball which moves when the switch is tilted. The ball momentarily closes the contact terminal means. FIG. 1 of Schneider is a plan view of a printed circuit board switch with contact terminals. The printed circuit board disk 10 has etched or deposited thereon pie shaped conductive contact terminals sections 11, 11a, 11b, 11c, 11d, 11e, 11f and 11g. These pie shaped conducts are separated and insulated from each other by radial channels 12. A surface 13a is electrically connected to contact terminals 11a, 11c, 11e and 11g by a connecting wire 14. A second surface 13b is connected to contact terminals 11b, 11d, 11f and 11 by a common conductor 15. A pair of pie shaped segmented printed circuit boards are connected in parallel and spaced from each other by an insulated circular track. On each of the two circuit boards electrical conductors are connected to adjacent pie shaped segments. A conductive ball is located intermediate to the two parallel segmented sections.

Please replace paragraph [0030] with the following amended paragraph:

[0030] The Ferraro Patent Application Publication No. U.S. 2002/0014971 is directed to a flood light lamp removal orientation alarm. The lights are designed to turn on automatically if a motion detector is triggered and the ambient light level is low. Further, if any of the flood light lamps and sockets are moved out of position, the event is detected. In Ferraro, FIG. 7 shows an alarm triggering circuit with sensor switches S3 and S4. The triggering circuit detects any attempted tampering. The alarm 122 stays on for a period of time determined by the delay interval timer 124. Further, an indicator lamp or light emitting diode (LED) remains on until manually turned off indicating that the alarm 122 has been triggered. A signal conditioning circuit for the two sensor switches consists of the resistor R1, capacitor C2 and a Schmidt trigger inverter.

Please replace paragraph [0031] with the following amended paragraph:

[0031] In the Ferraro Patent Application Publication, FIG. 14 shows a hardware implementation of a motion detector which functions by detecting a transition state of either or both tilt switches 801 or 802 which are single pole single throw regardless of their initial state (open or close). The event is stored in a flip-flop and is used to set an alarm.

Please replace paragraph [0065] with the following amended paragraph:

[0065] FIG. 1 shows the motion sensor 1. FIG. 1 is a cross-sectional view of the motion sensor which is taken along Line A-A of FIG. 5. FIG. 1 shows a sensor housing 5 which houses a conductive ball contact 6. The housing 5 is mounted on the printed circuit board 7 of the input device such as an optical wireless mouse. The printed circuit board 7 has mounted directly on it a stationary contact 8. As illustrated, the stationary contact 8 and the printed circuit board 7 have a hole 9 in them which helps to position the conductive ball contact 6 for a closed circuit. The housing 5 of the motion sensor is sealed to the printed circuit board 7. As illustrated, the sealing comprises an O-ring 10. However, any type of effective sealing that keeps out moisture may be employed. Thus, sealing by use of an adhesive may be employed alternatively.

Please replace paragraph [0078] with the following amended paragraph:

[0078] The bottom of the motion detector 20 operates in reverse when the motion sensor switch opens. More particularly, when the switch opens the input terminal PR to the latch U6A of the signal processing circuit 30 goes low and the output Q of latch U6A goes high, but only for a short time. The resistor R8 is pulled up to the voltage supply VCC. The resistor R9 is attached to the inverted output Q, inverter U9D, and capacitor C3. The capacitor ~~C2~~ C3 fills up and the input PR goes back high and a steady state is achieved without drawing of current. Resistor R7 is coupled between a base terminal of transistor Q1 of the signal processing circuit 30 and the output Q of the latch U6A. The transistor Q1 of the signal processing circuit 30 responds to the output Q of the latch U6A to invert the pulse to create a wake-up signal. In other words, when the Q output signal from the latch U6A is a high pulse, the output from the transistor Q1 is a low pulse.